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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/635,649	08/07/2003	Koei Hatade	60188-629	8814

7590 01/16/2007  
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Washington, DC 20005-3096

EXAMINER
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PHAM, VAN T

ART UNIT	PAPER NUMBER
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2627

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/16/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/635,649

Applicant(s)

HATADE ET AL.

Examiner

VAN T. PHAM

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11/08/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                                    |

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/08/2006 has been entered.

***Response to Arguments***

2. Applicant's arguments filed on 11/08/2006 with respect to claims 1 and 6 have been considered but are not persuasive.

3. Applicant's asserted "JP'574 discloses an object lens 3 and opening limit means 5 which are movable so that the relative positional relationship between the alleged object lens and semiconductor laser diode array is not fixed", which is correct. However, the claim 1 recited that "an objective lens for an optical pickup"....which cited "for use in an optical pickup having a unit, in which a semiconductor laser diode including light emitting portions for respectively emitting light of different wavelengths, a photo detector and said objective lens are integrated so that a relative positional relationship between said object lens and said semiconductor laser diode array is fixed" is intended used. Also, claim 1 cited that "a distance from the light outgoing face of the object lens to the surface of said first and second optical recording medium in an optical system being changed by moving said unit entirely" which is also an intended used. Therefore, the previous rejection could apply to this situation....However, to be evidenced that this application is obviousness in view of Yamamiya Kunio (JP 11-157928) in view of Kando et al. (US 5,404,009) (see rejection below).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamiya Kunio (JP 11-157928) in view of Kando et al. (US 5,404,009).

Regarding claim 1, Yamamiya discloses an object lens for an optical pickup (Fig. 1), said object lens being of finite conjugate type for use in an optical pickup having a unit (see abstract), in which a semiconductor laser diode including light emitting portions for respectively emitting light of different wavelengths, a photo detector and said objective lens are integrated so that a relative positional relationship between said object lens and said semiconductor laser diode array is fixed (intended used and Fig. 1), and capable of recording data in and reproducing data from a first optical recording medium and a second optical recording medium respectively having recording faces at different heights (see Fig. 1, element 80), a distance from the light outgoing face of the object lens to the surface of said first and second optical recording medium in an optical system being changed by moving said unit entirely, and curvatures and aspheric coefficients of said object lens being designed to have numerical aperture controlled to be changed in accordance with switching between said different wavelengths, whereby allowing said laser beam to be focused on said first optical recording medium or said second optical recording medium (see Figs. 1, 6 [0022]-[0025]).

Noted that claim 1 cited that “semiconductor laser diode including light emitting portions for respectively emitting light of different wavelengths, a photo detector and said objective lens are integrated so that a relative positional relationship between said object lens and said semiconductor laser diode array is fixed” is intended use. However, if it is Kando discloses that limitation (see Fig. 1).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide semiconductor laser diode, a photo detector and said objective lens are integrated so that a relative positional relationship between said object lens and said semiconductor laser diode array is fixed in Yamamiya as suggested by Kando, the motivation being in order to improve the incidence efficiency, thereby elevating the reliability of apparatus (see Kando abstract).

Regarding claim 3, the combination of Yamamiya and Kando, see Kando Fig. 9 and [0037], [0048], discloses the object lens of claim 1, wherein a distance between said light emitting portions of said semiconductor laser diode array is  $270 \mu\text{m}$  or less (noted the space between two portion of the emitting light arranged in such a way that the objected lens 75 can be adjusted ( $\text{NA}=0.45$  or  $\text{NA}=0.6$ ), even more than that Yamamiya discloses all the thickness of this apparatus could reduce in a very small elements or flat optical unit; and the space between the two emitting portions depend to the thickness of the prism ( $1.5h$ ,  $h$ : thickness of prism)).

Regarding claim 4, the combination of Yamamiya and Kando, see Yamamiya Figs. 1-9 and inherently, discloses the object lens of claim 1, wherein change of the numerical aperture of said object lens is controlled in accordance with the switching between said different wavelengths in such a manner that, in the case where a laser beam of a wavelength suitable to

Art Unit: 2627

said first optical recording medium is allowed to pass through said object lens for irradiating said first optical recording medium, portions of said laser beam respectively passing through a circular center region including a lens optical axis and a ring-shaped intermediate region around said center region are focused on the recording face of said first optical recording medium, and that in the case where a laser beam of another wavelength suitable to said second optical recording medium is allowed to pass through said object lens for irradiating said second optical recording medium, portions of said laser beam respectively passing through said center region and a ring-shaped peripheral region around said intermediate region are focused on the recording face of said second optical recording medium (see rejection above of claim 1).

Regarding claim 5, the combination of Yamamiya and Kando, discloses the object lens of claim 4, wherein said center region and said intermediate region are defined by an identical lens function (inherently).

Regarding claim 6, see rejection above of claim 1.

Regarding claim 7, the combination of Yamamiya and Kando, see Yamamiya wherein spherical aberration in a predetermined region of said object lens is changed.

#### *Cited References*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The cited references relate to an optical pickup device includes a double -source built-in semiconductor laser for emitting light of a first wavelength and a light of a second wavelength, and an optical pickup apparatus, laser light sources emit a first light beam having having a

Art Unit: 2627

relatively shorter wavelength for the DVD and a second light beam having a longer wavelength for the CD.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VAN T. PHAM whose telephone number is 571-272-7590. The examiner can normally be reached on Monday-Thursday from 9:00 am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571-272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VP

  
THANG V. TRAN  
PRIMARY EXAMINER